

Sources for this talk

- Lower Hudson Council of Conservation Districts
 Streamwalk Method
- Center for Watershed Protection's Illicit Discharge
 Tracking Guide
- Jen Epstein, Riverkeeper
- John Gephards, Quassaick Creek Watershed Alliance
- Emily Vail, NYS DEC Hudson River Estuary Program
- Martha Cheo, formerly of Hudson River Basin Watch
- Carolyn Klocker, Cornell Coop. Ext Dutchess
- Dan Troge, Fishkill Creek Watershed Committee
- Gary Capella, Ulster SCWD
- Amanda LaValle, Ulster Dept of Environment
- Beth Roessler, NYS DEC HREP Trees for Tribs

Streamwalk Methods Available

- Lower Hudson Council of Conservation Districts
 Streamwalk Method Survey sheet
- NYS Council of Trout Unlimited Visual Stream Assessment Protocol
- NRCS Stream Visual Assessment Protocol
- Center for Watershed Protection's IDDE manual

Reports Available

Hunns Lake Stream Walk Report Fishkill Creek Stream Walk Report Quassaick Creek stream walks – multiple reports

Streamwalk as Citizen Patrol

A neighborhood watch for the Rondout Creek

"The greatest impact you have is not in the number of tickets you write, or the number of people you arrest, but in the being visible while on patrol – your omnipresence is a powerful deterrent."

-- Lesson from NYS Trooper Academy (paraphrase)



What is a Streamwalk?

A **visual inspection** of a waterway with the purpose of documenting:

Current conditions (riparian land use, bank condition, location of pipes and culverts, areas of erosion and sedimentation)

Problems (pipe discharges, stormwater outfalls, erosion, manure, litter, etc.)

It may be a **general survey** to define conditions, or a **site assessment** to investigate a specific issues.

Why bother?

- Build relationships with landowners
- Build relationships with regulatory, enforcement and other professionals in government
- Get to know the creek establish a baseline
- Identify, report and solve immediate pollution problems
- Identify problems in need of further investigation/action
- Assist your municipalities in MS4 outfall inspections
- Create public awareness a deterrent



Before the Walk

- 1. Obtain permission from and invite landowners
- 2. ID relevant professional contacts
- 3. Review available information
- 4. Determine segments
- 5. Develop survey form
- 6. Media outreach
- 7. Gather necessary materials

Obtain Landowner Permission

Walking: Under § 140.05 of the New York Penal Law, "[a] person is guilty of trespass when he knowingly enters or remains unlawfully in or upon premises."

- Boating: Public navigation is lawful on non-tidal waterways that have or had the capacity for trade or travel; "the courts have held that it is a public nuisance for a landowner to obstruct, annoy, or hinder the public right of navigation on such waters... However, the public right of navigation does not include intrusion on private property except as necessary for safe water passage."
 - DEC OGC 9: Enforcement Guidance for Public Rights of Navigation and Fishing

Obtain Landowner Permission

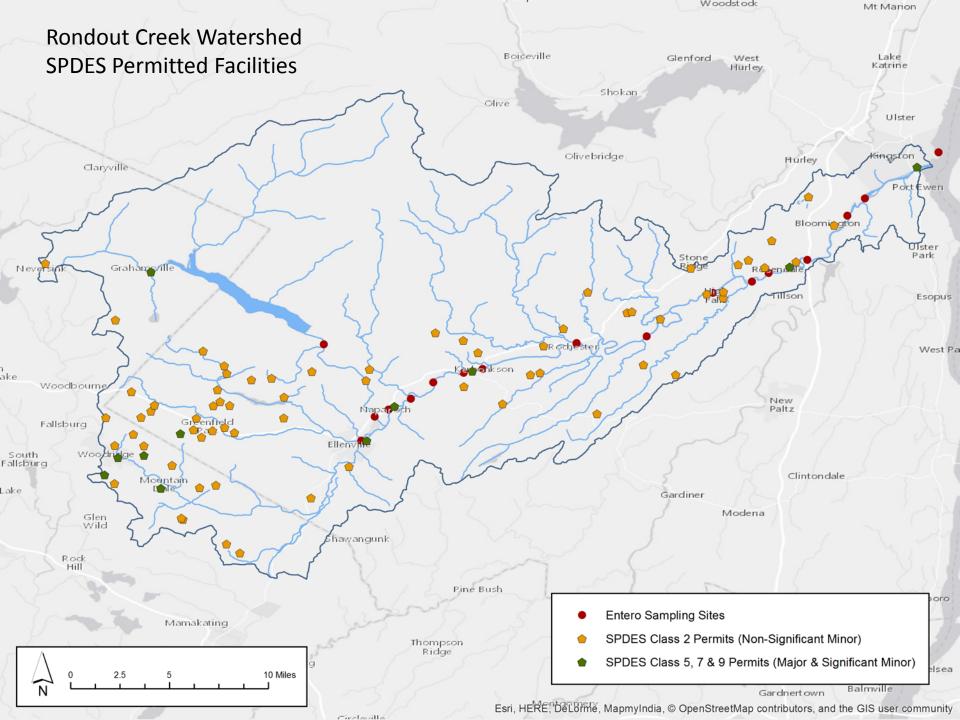
- Avoid trespass
- Meet allies
- Develop list of all waterfront property owners (ask for contact information when you seek permission
- Notification is a deterrent

Relevant Professional Contacts

- DEC pollution violations
- Riverkeeper enforcement followup
- Ulster Enviro Dept., Towns MS4
- **DOH** septics
- SWCD streambank erosion
- DEC Trees for Tribs planting opportunities

Review Available Information

- Rondout Creek Watershed Management Plan
- Ulster Parcel Viewer (<u>http://ulstercountyny.gov/maps/parcel-viewer/</u>)
- SPDES permits Riverkeeper
- MS4 outfalls Hudson River Watershed Alliance (http://crreo.newpaltz.edu/ms4/), Ulster Dept. of Environment, municipalities
- MS4 Illicit Discharge Detection and Elimination (IDDE) plans
- Town insurance policies





This map of MS4 Outfalls is made using Google Fusion Tables.

Select the parameters of your search below, and the site will parse the dataset for outfalls that match you criteria. The checkboxes below toggle overlays on and off. Please give them a little bit of time to load.

Search for Address

Enter an address or an intersection

Search By Outfall ID

Partial ID's are OK.

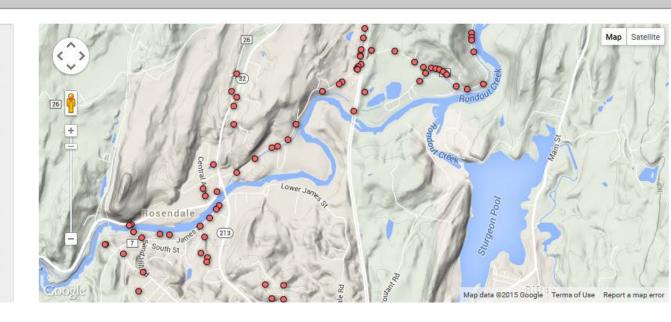
Search By MS4 Permit

Partial Permit Numbers are OK.

Search By Outfall Type

pipe, culvert, catch basin, swale, etc.

Reset



Determine Segments

- Fishkill Creek Watershed Council generally walked
 ~1 mile per afternoon, in groups of 2-6 per segment
- Rondout is ~41 miles long (Reservoir to Hudson)
- Distance between Entero sampling points ranges from <1 mile to ~6 miles. Many are ~1.5 miles apart.
- Many tributaries (Sandburg, Cottekill, Rochester & Kripplebush creeks; Beer & Ver Nooy kills; Wallkill River and others)

Determine Segments

- "The main tributary that requires further investigation is the Sandburg Creek" – Rondout mgmnt plan, 2010
- Entero Counts (GM) generally increase between
 - Reservoir and Napanoch
 - the prison and Foordmoore Road
 - High Falls and AJ Snyder Field
 - Thruway crossing and Eddyville
- Optical brightener data indicates there's a likelihood that domestic sources of fecal matter are influencing at least two sampling locations:
 - Tillson/NYS Thruway Crossing
 - Kerhonkson-42nd St Bridge

Develop Your Survey Sheet

- Basics Date, time, weather, prior rain, segment, lat/long, landmarks
- Photos (and Video)!
- Outfalls ID, check signs, describe outfall, document any "floatables" or evidence of wastes
- Land Use & Bank conditions riparian buffer coverage, erosion, construction impacts
- Stream conditions sedimentation, turbidity, discoloration, algae, odor
- Animal evidence waterfowl, dog waste, etc.

Press Outreach

- Think broadly print, TV, radio, online; local and regional
- Photo Op This is a highly visual activity, a plus for news organizations
- What makes it newsworthy? Volunteers from multiple towns launch a citizen patrol of the Rondout Creek to identify problems and solutions in the largest tributary of the tidal Hudson River.



During the Walk

- 1. Fill out survey and take detailed notes
- 2. Take lots of photos
- 3. Report immediate problems
- 4. Take Entero and/or optical brightener samples?

Some Possible Signs of Pollution

- Certain pipe discharges such as dry-weather flow from storm sewer outfalls (except buried streams), outfalls that don't appear on MS4 or SPDES maps or outfalls with evidence of sanitary wastes
- Water discoloration brown, muddy, cloudy, films and sheens
- Dumping garbage, fill, construction debris
- Odors sewage, chemicals, petroleum
- Excessive vegetation growth algae in water or green grass over failing septic fields

What to Include in a Pollution Report

- Photos (close up and for context)
- Description
- Weather conditions
- Time and date
- Precise location

Don't delay too long; timely reports are often key. But thorough reports are preferable – and frivolous reports should always be avoided.

Program These Into Your Phones Now

DEC Pollution Tip Line: 1-800-TIPP DEC (1-800-847-7332)

DEC Police Dispatch: 877-457-5680

Riverkeeper Pollution Tip Line: 914-478-4501 ext 231

Send reports to watchdog@riverkeeper.org

Identify Opportunities for Action

With willing landowners interested:

Erosion – Soil & Water Conservation District offers free advice and planning to landowners, but project are at landowner expense; some farms may qualify for grant funding

Stream bank planting – DEC Trees for Tribs provides free trees and shrubs, plans and assistance for planting on stream banks with no or few trees/shrubs

Document opportunities with photos and specific site description, and discuss with both landowner and state/county agencies

Water Quality Sampling

Sample at point of entry, at a set number of stormwater outfalls, at potential problem sites? How many?

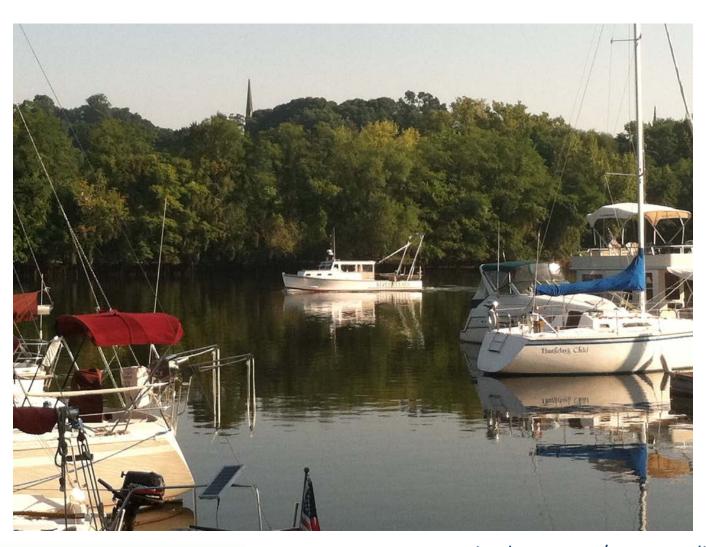
Logistics are a challenge – driving samples, accessing driver, timing, patrol boat (lab) schedule



After the Walk

- 1. Additional press outreach?
- 2. Organize data
- 3. Followup (sites in need of additional investigation, connecting landowners to resources, etc.)
- 4. Report on results

Good Luck On Patrol!





www.riverkeeper.org/water-quality
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